IN THE CLAIMS

Please cancel Claims 1-46 and 59-135, without prejudice to or disclaimer of the subject matter recited therein.

1-46. (Cancelled)

47.   (Previously Presented) An image processing apparatus, comprising:

discrimination means for discriminating characteristics of image information of a first region included in a region of a first dot pattern representing predetermined information;

generation means for generating a second dot pattern representing any one of a plurality of types of dot patterns in accordance with a discrimination result by said discrimination means;

embedding means for embedding the second dot pattern in the first region; and

means for repeatedly executing discriminating characteristics of image information of a next first region, generating a second dot pattern, and embedding the second dot pattern in the next first region, until the region of the first dot pattern is embedded.

48.   (Cancelled)

49.   (Original) The apparatus according to claim 47, wherein the second dot pattern is a dot pattern formed from a single line.

50.   (Previously Presented) The apparatus according to claim 47, wherein the first dot pattern comprises the second dot pattern.

51.   (Original) The apparatus according to claim 47, wherein said embedding means quantizes the first region to output quantized image information containing the second dot pattern.

52.   (Previously Presented) The apparatus according to claim 51, further comprising determination means for determining a quantization condition on the basis of the image information in the first region, the predetermined information, and the second dot pattern,

wherein said embedding means quantizes the first region on the basis of the determined quantization condition.

53.   (Original) The apparatus according to claim 51, wherein the quantization is executed by pseudo-halftoning processing using error diffusion.

54.   (Previously Presented) The apparatus according to claim 47, wherein said discrimination means discriminates a quantization error previously generated in the first region by said embedding means.

55. (Previously Presented) The apparatus according to claim 47, wherein said discrimination means discriminates a type of the second dot pattern previously embedded by said embedding means.

56. (Previously Presented) The apparatus according to claim 47, wherein said embedding means inhibits embedding the second dot pattern when it is determined on the basis of the discrimination result by said discrimination means that the first region has a predetermined density.

57. (Previously Presented) An image processing method, comprising:

a discrimination step of discriminating characteristics of image information of a first region included in a region of a first dot pattern representing predetermined information;

a generation step of generating a second dot pattern representing any one of a plurality of types of dot patterns in accordance with a discrimination result in the discrimination step;

an embedding step of embedding the second dot pattern in the first region; and

a step of repeatedly executing discriminating characteristics of image information of a next first region, generating a second dot pattern, and embedding the second dot pattern in the next first region, until the region of the first dot pattern is embedded.

58.   (Previously Presented) A computer-readable memory, comprising:

a code for discriminating characteristics of image information in a first region included in a region of a first dot pattern representing predetermined information;

a code for generating a second dot pattern representing any one of a plurality of types of dot patterns in accordance with the discrimination;

a code for embedding the second dot pattern in the first region; and

a code for repeatedly executing discriminating characteristics of image information of a next first region, generating a second dot pattern, and embedding the second dot pattern in the next first region, until the region of the first dot pattern is embedded.

59-135. (Cancelled)